RE-USABLE SHIPPING CONTAINER

Briefer:

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Vision Statement

Improve aircraft availability and reduce Life Cycle Cost

through reduction of damage to spares in transit and

storage.

Strategy

- 1. Assemble a Team of shipping container experts-- (completed)
 - SPO-S (SSM)
 - **AFMC LSO (Packaging & Engineering)**
 - BOEING (Packaging & Engineering, Asset Mgmt)
- 2. Identify Potential Candidates, 11 identified (completed)
- 3. Calculate short/long term cost savings (In work)
- 4. Acquire funds for design effort (completed)
- 5. Design containers for 11 candidates (In-work)
- 6. Implementation Strategy (In-work)
- 7. Acquire funds for packaging container production



Initial Approach

Identification of C-17 assets that appear to be potential candidates for improved shipping container standards. A total of ten components were initially identified for container re-design, based on CMT issues, Deficiency Reports, Field Service Reports or High Cost Items reported failures.



Top 11 Candidates

The team has identified eleven container candidates:

- 1620-01-455-8001BA Beam Assy 17P2C1037-508 RH
 1620-01-455-7794BA Beam Assy 17P2C1037-509 LH
- 6610-01-465-4314BA HUD 17B1U6015-501
- 1560-01-335-3279BA Radome 171A7006-1, -501
- 1630-01-449-8013BA Brake (Honeywell) 2609612-4
- 1630-01-452-69011BA Brake (Messier-Bugatti) C20535000
- 1680-01-414-6719BA Winch OBIGGS 42494-3
- 1620-01-373-0741BA Beam Assembly Bogie 17P2C1262-505RH
 - 1620-01-373-0742BA Beam Assembly Bogie 17P2C1262-506LH
- 1560-01-444-7673BA Thrust Reverser 17P8D9200-527
- 1620-01-449-3406BA Landing Gear, Retract 17N9C0925-568
- 1620-01-490-3892BA Landing Gear Retract 17N9C0905-501
- 1620-01-466-8361BA Damper Shimmy 17P2C1440-507



C-17 CONTAINER PROGRAM DESIGN CHARACTERISTICS

AFPTEF has listed the following design characteristics that will be incorporated into the design based on user requirements and past experience. Please evaluate each characteristic to ensure they meet your program requirements.

- I. The containers will provide mechanical protection (item fragility high) and environmental protection (water vapor proof).
- II. The containers will be tested to verify required protection requirements. A test plan will be provided at the PDR for approval.
- III. We recommend not painting the containers due to initial cost and lifetime maintenance costs. The container and has been tested for long term corrosion resistance capabilities. No prototypes will be painted.
- IV. The containers will be stackable. They will have indexing provisions on top and bottom to allow easy stacking operations as well as restraining lateral and longitudinal movement.
- V. Wide handle, cam-over-center, latches will be used to secure the cover to the base structure. No tools will be required to open or close latches. The handles meet chemical glove and arctic mitten requirements.



C-17 CONTAINER PROGRAM DESIGN CHARACTERISTICS

- VI. The containers will be designed for forklift handling.
- VII. The container covers will be designed to incorporate handles and/or lift devices for manual and/or mechanical removal.
- VIII. The container will incorporate various means of item restraint systems, from complete encapsulation ,in foam cushioning to aluminum frame structures.
- IX. Some containers will incorporate part boxes to house required support parts and kits.
- X. Some containers will incorporate visual inspection port to allow identification/inspection of asset without opening container.

2004/2005 Timeline

Funding-- Mar 04 Apr 04

Design-----

April 04

Dec 04

Cost Savings Analysis--

Mar 04

?

Implementation Strategy--Jan 05 May 04

Prototype---

Apr 05

Jul 04

Funds for Production-----

Aug 04



Final

Questions